

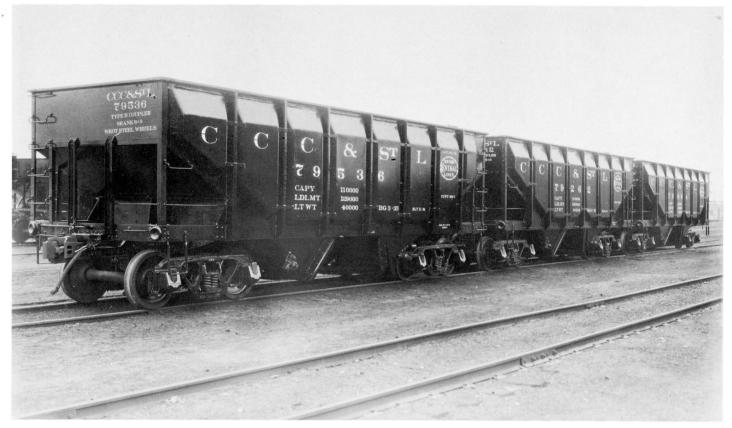
# U.S.R.A. DESIGN HOPPER CARS

By C. M. Smith



A predecessor of the USRA hopper cars on the Central roster was LS&MS D29272, LS&MS Lot 27, which was built by the Pressed Steel Car Company in 1899. Lot 27 represents a number of "firsts" in the Central freight car fleet: 1. Pressed Steel Car's first order from the Central, 2. Central's first all-steel freight cars, 3. Central's first freight cars of 100,000 lbs. capacity, 4. Central's first hopper cars in the modern form (although designated "self-clearing gondolas" in the parlance of the times — the term "hopper car" was not in general use until some years later). Note the rather massive pressed steel side sill on this car — the use of the side structure as a load bearing member was a later development — and the Pressed Steel Car Company's version of the diamond arch bar truck.

Bob Lorenz Collection



These three cars from Lots 390-H (79262) and 390-H (79464, 79536) were rebuilt at the Beech Grove shops in 1933 using the Union Metal Products Company's pressed steel paneled sides with integral stakes. The 1936 renumbering program is still in the future, and the cars proudly carry Big Four reporting marks.



By the early to middle 1930's these cars were coming due for heavy repairs, and a number were selected for various modifications rather than being repaired in kind.

Most noticeable of these modified cars were those which received paneled sides of the Union Metal Products Company (later Standard Railway Equipment Company) design. Six prototypes (NYC 416152, 416414, 416551 and CCC&StL 79262, 79464, 79536) were so converted in 1933, and between 1936 and 1940, 1,787 additional cars followed and were reassigned to Lots 640-H, 641-H, 645-H, 651-H, and 674-H.

Another modification to 200 cars was the application of cast steel hoppers and hopper doors to cars which were reassigned to Lots 635-H and 645-H (these last also received the panel side treatment).

With the coming of the World War II years and material restrictions, modifications to body construction came to an end, although heavy repairs continued.

During the 1930's the "AB" brake was adopted as the new standard freight brake of the American railroads, replacing the "K" type brake. Lot 651-H received "AB" brake equipment at heavy repair in 1936, as did the 1,500 cars in the 1943 heavy repair program. Other USRA hopper cars received the "AB" equipment at various times over the years, and all cars remaining in service after the early 1950's were so equipped.

One "demodification" is worthy of note. Cars in Lot 645-H which had received panel sides in 1936 had these sides replaced with conventional USRA design sides in 1951.

USRA hopper cars also provided the nucleus of the Central's covered hopper car fleet. The first covered hopper cars on the Central were nine Michigan Central cars from Lot 411-H which were converted for carborundum service at West Detroit in 1929.

Following this conversion, an additional 200 cars were converted to covered hopper cars for cement service between 1932 and 1937, becoming Lots 625-H, 635-H, 647-H, and 661-H.

With regard to painting, body color for the USRA hoppers throughout their service life was dark red oxide, and stencilling was white. The only exceptions were the later covered hopper conversions, which received gray body color with black stencilling, a more practical scheme for cement service. New York Central did not adopt black as the body color for open top hoppers until the middle 1950's, by which time all USRA hoppers were retirement candidates.

The question is often raised as to the significance of the letter "S" which preceded the road number on many older New York Central cars, including many of the USRA hopper cars. Investigation reveals that the letter "S" had two meanings. First, it signified a "System" car, or one which was "at home" (per diem did not accrue) on any of the NYC affiliated roads, and secondly it denoted a maintenance group — which basically determined a limit of expenditure for repairs. Other groups were "O" (which cars were unmarked) and "A" (which cars had a 5 inch "A" stencilled below the oval). "O" cars generally were older cars with the lowest limit of expenditure, while "S" cars had the highest limit. This stencilling practice was instituted about 1923 and was discontinued ten years later.

During the period of federal control of the American rail-roads during and immediately following World War I, from January 1, 1918 to March 1, 1920, the United States Rail-road Administration acquired a total of 93,400 standardized freight cars. These were distributed to the various railroad properties as required to alleviate equipment shortages brought about by the wartime traffic demands.

Of the 22,200 55-ton hopper cars included in this total, 3,000 were allocated to the New York Central Lines where they were assigned to ten lots, Lot Nos. 378-H through 397-H not inclusive (see tabulation for distribution).

Following the end of federal control, the New York Central acquired an additional 5,500 55-ton hopper cars of the original USRA design (Specification 1005) in six lots, Lot Nos. 407-H through 426-H not inclusive. These cars were delivered in 1920 and 1921.

By this time the railroad's old individuality had begun to reassert itself, and the New York Central developed its own specification, Specification no. 479-B, for a slightly modified USRA hopper car. 3,856 cars were built to this specification

By this time the railroad's old individuality had begun to reassert itself, and the New York Central developed its own specification, Specification no. 479-B, for a slightly modified USRA hopper car. 3,856 cars were built to this specification in five lots, Lot Nos. 432-H through 451-H not inclusive. An additional 979 cars were built in Lot 449-H to specification 499-A which was similar to specification 479-B except that it was for bodies only, these cars being equipped with second-hand trucks furnished by the railroad. Deliveries of these cars were made in 1922-23.

Finally, the New York Central's USRA hopper car fleet was brought to a grand total of 13,347 cars by the acquisition of 12 second-hand cars bought from the Chesapeake & Ohio Railway in 1933. These cars were assigned to Lot 631-H.

Notable differences between cars to the original USRA specification no. 1005 and those to New York Central specifications 479-B and 499-A were:

FeatureSpecification 1005Specifications 479-B and 499-AHand BrakeDrop lever type, vertical staffWheel type, vertical staffTrucksAndrews typeBettendorf type\*Interior braces3 Crossties2 Crossties and 1 Crossridge

Roping Staple None At center of car

Brake Cylinder Pressure head towards end of car Non-pressure head towards end of car

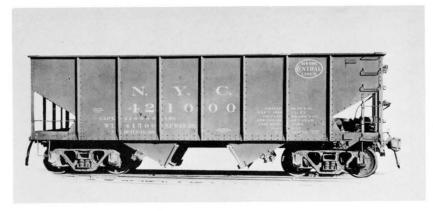
\*Note - Cars in Lot 449-H with second-hand trucks had a mixture of Andrews and Bettendorf trucks

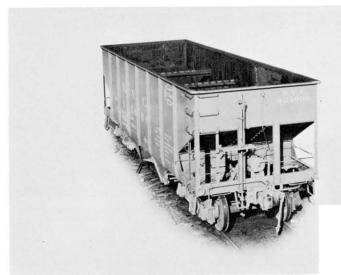


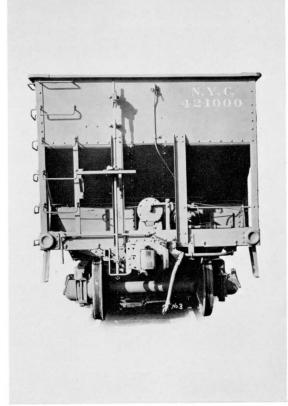
These three cars from Lot 387-H (416152, 416414, 416551) were rebuilt at the Central's Avis, Pa. shops in 1933 using the Union Metal Products Company's pressed steel paneled sides with separate stakes. Note also that the original drop lever hand brake has been replaced with a wheel type.

The USRA hopper cars served the New York Central System long and well. In 1955, 32 years after the construction of the last car - a ripe old age for hopper cars - 7,931 of these cars out of the original 13,347 were still listed in the "Official Railway Equipment Register". However, new car de-

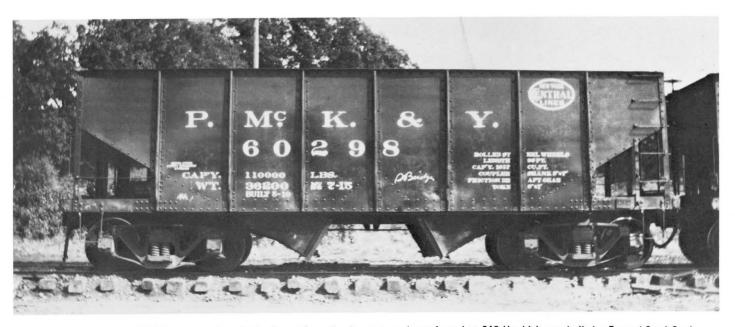
liveries in the 1956-1959 period, together with old age, took their toll, and the listing diminished to 2,806 in 1958, to 1,028 in 1959, and finally to 135 in 1961. The day of the USRA hopper car on the New York Central was over.







Composite views of car 421000, Lot 410-H, as built.



PMcK&Y hopper car 60298 was another of the Central's earlier hoppers, and was from Lot 249-H which was built by Pressed Steel Car in 1910. Reweigh date in this photo is 7-15, but many cars from this lot were in service until the late 1940's.

BLACK MAGIC! 95,000,000 tons of it

travel over New York Central yearly Somewhere, paratroops attack, floating to earth on Nylon 'chutes, made

from ... coal? Somewhere, a girl welder directs a hissing electric spark generated by the power of ... eoal?

Somewhere, a trainload of war materiel is sped on its way to port by the driving force of ... eoal?

There's black magic, modern magic, in every lump of coal. And New York Central is proud to have this fighting fuel as its largest customer. For this railroad acts as a giant mechanical stoker...picking up coal from mines and other railroads ... and feeding it to industries, docks and dealers along its 11,000-mile right of way.

Some 60,000 coal cars now wear the "N.Y.C." But even these must be reinforced with cars of other roads to haul a yearly coal total of 95,000,000 tons...including millions of tons used by the railroad itself.

Today, only careful timing and organization keep coal flowing to where it is needed. Tomorrow, that war experience will pay dividends...in still more efficient fuel delivery to industries and homes of post-war "Centraland."



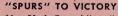
### STOKING THE FIRES OF WAR

One big plant may burn as much as 200 carloads of coal a day. Those cars must be delivered in endless procession from the mines to the plant siding ... and the empties speeded back for more coal.



### GENTLE GIANT

This giant coal dumper picks up a car and pours its 70-ton load into a ship as easily as you'd pour sugar from a spoon. Gently, too. For New York Central takes extra care to prevent coal breakage.



New York Central "spur" tracks and branches serve mines in five leading coal states. At each mine, loaded cars must be picked up daily and replaced by empties to maintain the vital flow of coal.

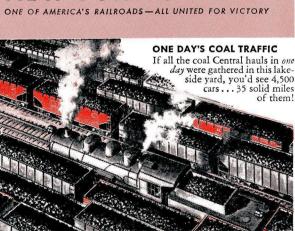


#### HELP SAVE FIGHTING FUEL

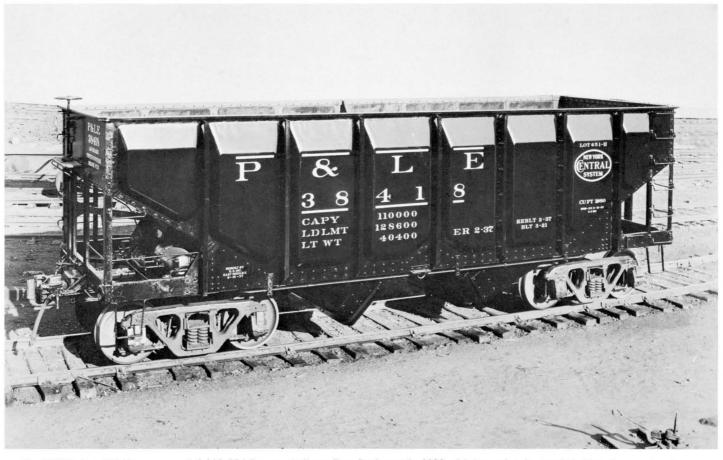
Due to war demands, it's not always possible to deliver to your dealer as many cars of coal as he or we or you could wish. So please use your coal supply with care...help con-serve America's fighting fuel.



## NEW YORK CENTRAL

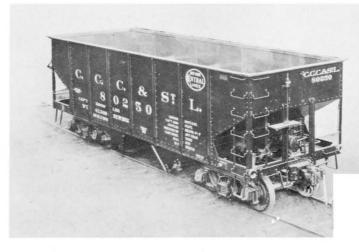


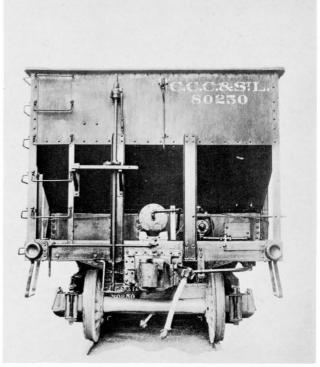
BUY MORE WAR BONDS



Car 38418, Lot 651-H, was one of 1,419 P&LE cars rebuilt at East Rochester in 1936 with integral stake paneled sides of copper-bearing steel. These cars were originally in Lots 407-H and 426-H and were the most durable and successful of the panel side rebuilds, with 1,283 cars still in service in 1958.







Composite views of Big Four car 80250, Lot 412-H, ready to leave the ACF plant at Berwick, Pa. in 1920.

## **NEW YORK CENTRAL**

Lot	Spec	No.									See	Light	Ca	pacity
No.	No.	Cars	Builder	Year	Road	Original Numbers	Road	Intermediate Nos.	Road	Final Numbers	Notes	Weight		Cu.Ft.
378-H	1005	500	PSC	1918	NYC	420000 - 420499			NYC	831000 - 831499	Α	40800	55	1880
383-H	1005	200	PSC	1918	CCCStL	79000 - 79199		~	NYC	833000 - 833199	В	41200	55	1880
387-H	1005	500	ACB	1919	TOC	28000 - 28499	NYC	416100 - 416599	NYC	832100 - 832599	Α	41000	55	1880
388-H	1005	500	SSB	1918	NYC	420500 - 420999		744 3.2°	NYC	831500 - 831999	С	41200	55	1880
390-H	1005	200	ACB	1918	CCCStL	79200 - 79399			NYC	833200 - 833399	D	41200	55	1880
391-H	1005	200	SSB	1918	CCCStL	79400 - 79599		· ·	NYC	833400 - 833599	Е	41200	55	1880
392-H	1005	200	PCM	1918	CCCStL	79600 - 79799			NYC	833600 - 833799	В	41200	55	1880
393-H	1005	200	RSC	1918	CCCStL	79800 - 79999			NYC	833800 - 833999	. F	41200	55	1880
396-H	1005	300	PSC	1918	K&M	27500 - 27799	NYC	401500 - 401799	NYC	834500 - 834799	Α	41200	55	1880
397-H	1005	200	RSC	1918	K&M	27800 - 27999	NYC	401800 - 401999	NYC	834800 - 834999	G	41200	55	1880
407-H	1005	989	SSN	1920	PLE	52000 - 52988		TO SEE THE PROPERTY OF		Cilia de Casales Calas III de Artigo Calas Casales Calas Casales Calas Casales	Н	41000	55	1880
407-H	1005	11	SSN	1920	PMcKY	65500 - 65510					Н	41000	55	1880
410-H	1005	1500	SSB	1921	CCCStL	65000 - 66499			NYC	837000 - 838499	F	41000	55	1880
411-H	1005	500	PSC	1920	MC	11200 - 11699			NYC	839200 - 839699	J	41000	55	1880
412-H	1005	1750	ACB	1921	CCCStL	80250 - 81999			NYC	840250 - 841999	K	41200	55	1880
413-H	1005	250	SSB	1921	CCCStL	80000 - 80249			NYC	840000 - 840249	L	41000	55	1880
426-H	1005	500	SSN	1921	PMcKY	65000 - 65499					М	41100	55	1880
432-H	479-B	750	PCM	1923	NOR	800 - 1549	CCCStL	64000 - 64749	NYC	843000 - 843749	N	40600	55	1880
433-H	479-B	955	ACN	1922	NYC	422545 - 423499			NYC	844545 - 845499	N	40400	55	1880
433-H	479-B	45	ACN	1922	CCCStL	66500 - 66544			NYC	844500 - 844544	N	40400	55	1880
434-H	479-B	2000	ACM	1923	CCCStL	82000 - 83999			NYC	846000 - 847999	N	41000	55	1880
449-H	499-A	979	ACN	1923	NYC	424000 - 424978			NYC	848000 - 848978	Р	40600	55	1880
450-H	479-B	49	ACN	1923	NYC	423500 - 423548		i i	NYC	849500 - 849548		40500	55	1880
451-H	479-B	57	ACM	1923	CCCStL	66843 - 66899			NYC	849843 - 849889	N	40900	55	1880
625-H		10	ER	1932					NYC	880010 - 880019	1	46500	55	1336
631-H		12	PSC	1921	NYC	424988 - 424999			NYC	842988 - 842999	2	38000	55	1880
635-H		65	MRR	1935					PLE	7000 - 7064	3	44400	55	1336
639-H		100	BG	1936					NYC	850000 - 850099	4	41000	55	1880
640-H		68	BG	1936				× 1	NYC	850100 - 850167	5	36900	55	1980
641-H		90	BG	1936				٨	NYC	850210 - 850299	6	39800	55	1980
645-H		100	BG	1936					NYC	850300 - 850399	7	40700	55	1980
647-H		20	ER	1936					NYC	880020 - 880039	8	44700	55	1336
651-H		1419	ER	1937					PLE	37000 - 38418	9	40400	55	1980
655-H		100	BG	1937					NYC	851200 - 851299	10	40000	55	1980
661-H		105	BG	1937				8	NYC	880040 - 880144	11	44100	55	1394
674-H		10	BG	1940					NYC	850180 - 850189	12	36700	55	1974
		3	AV	1933	NYC	See Note 13			NYC	850170 - 850172	13	39000	55	1942
		3	BG	1935	CCCStL	See Note 14			NYC	850173 — 850175	14	38600	55	1982

- Note 1 10 cars from Lot 449-H converted to covered hoppers at East Rochester in 1932 and Lot 625-H assigned. Three cars from this lot were transferred to Canada and final numbers were CASO 880145, 48, and 55.
- Note 2 12 cars purchased from C & O Ry. in 1933 and Lot 631-H assigned.
- Note 3 65 cars from Lot 407-H converted to covered hoppers at McKees Rocks in 1935 and Lot 635-H assigned.
- Note 4 100 cars from Lots 378-H, 387-H, 388-H, 391-H, 393-H, 396-H, 397-H, 410-H, 411-H, 412-H, 432-H, 433-H, 434-H, 449-H, and 451-H equipped with cast steel hoppers and cast steel drop doors at Beech Grove in 1936 and Lot 639-H assigned.
- Note 5 68 cars from Lots 378-H, 387-H, 393-H, 396-H, 397-H, 410-H, 411-H, and 412-H were equipped with body plates, sheets, paneled sides, and corrugated drop doors made of various alloy steels at Beech Grove in 1936 and Lot 640-H assigned.
- Note 6 90 cars from Lots 378-H, 383-H, 387-H, 388-H, 390-H, 391-H, 392-H, 393-H, 396-H, 410-H, 411-H, and 412-H were equipped with integral stake paneled sides of copper bearing steel at Beech Grove in 1936 and Lot 641-H assigned.
- Note 7 100 cars from Lots 378-H, 383-H, 387-H, 388-H, 390-H, 391-H, 392-H, 393-H, 396-H, 397-H, 410-H, 411-H, 412-H, and 413-H were equipped with cast steel hoppers, cast steel drop doors and deep paneled sides at Beech Grove in 1936 and Lot 645-H assigned. In 1951, the paneled sides were replaced with outside stake flat sides similar to the original USRA construction.

- Note 8 20 cars from Lot 449-H converted to covered hoppers at East Rochester in 1936 and Lot 647-H assigned. Seven cars from this lot were transferred to Canada and final numbers were 880149, 54, 56, 57, 58, 59, and 60.
- Note 9 1419 cars from Lots 407-H and 426-H were equipped with integral stake paneled sides of copper bearing steel at East Rochester in 1937 and Lot 651-H assigned.
- Note 10 100 cars from Lots 412-H and 413-H equipped with paneled sides at Beech Grove in 1937 and Lot 655-H assigned.
- Note 11 105 cars from Lot 449-H converted to covered hoppers at Beech Grove in 1937 and Lot 661-H assigned. Two cars from this lot were transferred to Canada and final numbers were CASO 880146 and 880147.
- Note 12 10 cars from Lots 390-H, 391-H, 393-H, 410-H, and 412-H were equipped with floor sheets and paneled sides of "Ductiloy" steel at Beech Grove in 1940 and Lot 674-H assigned.
- Note 13 3 cars from Lot 387-H (416152, 416414, 416551) equipped with paneled sides at Avis in 1933. No new lot assigned.
- Note 14 3 cars from Lots 390-H and 391-H (79262, 79464, 79536) equipped with paneled sides at Beech Grove in 1935. No new lot assigned.
- Note 15 9 cars from Lot 411-H (11222, 11240, 11247, 11262, 11335, 11375, 11409, 11465, 11495) converted to covered hoppers for carborundum service at West Detroit in 1929. No new lot assigned. Final number series of these cars NYC 880000-880008.

Note A See Notes 4, 5, 6, and 7.

Note B See Notes 6 and 7.

Note C See Notes 4, 6, and 7.

Note D See Notes 6, 7, 12, and 14.

Note E See Notes 4, 6, 7, 12, and 14.

Note F See Notes 4, 5, 6, 7, and 12.

Note G See Notes 4, 5, and 7. Note H See Notes 3 and 9.

Note J See Notes 4, 5, 6, 7, and 15.

Note K See Notes 4, 5, 6, 7, 10, and 12.

Note L See Notes 7 and 10.

Note M See Note 9.

Note N See Note 4.

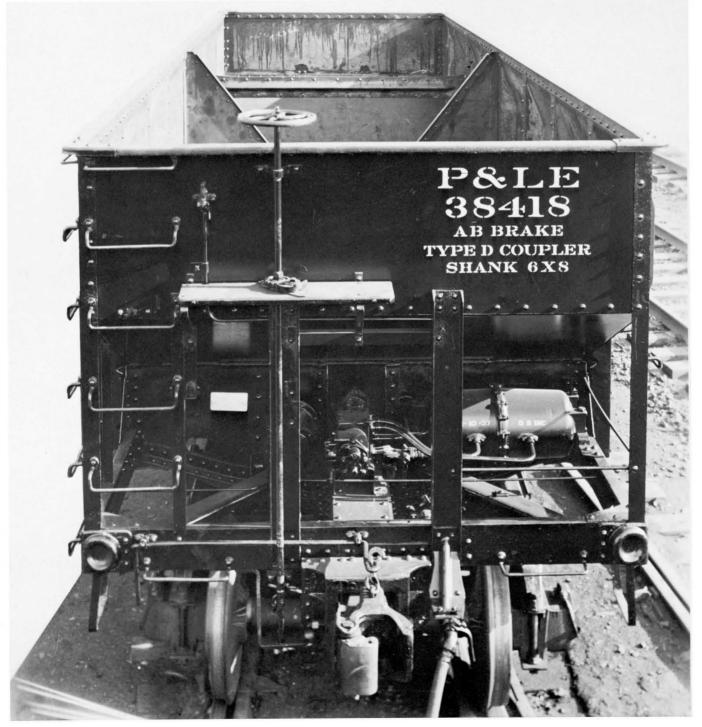
Note P See Notes 1, 4, 8, and 11.

Reporting Marks:

CCC&StL, Cleveland, Cincinnati, Chicago & St. Louis; K&M, Kanawha & Michigan; MC, Michigan Central; NOR, Cincinnati Northern; NYC, New York Central; PLE, Pittsburgh & Lake Erie; PMcKY, Pittsburgh, McKeesport & Youghiogheny; TOC, Toledo & Ohio Central.



Builder and Shop Abbreviations: ACB, American Car & Foundry, Berwick, Pa.; ACM, American Car & Foundry, Madison, Ill.; ACN, American Car & Foundry, Buffalo, N.Y.; AV, NYC Avis, Pa.; BG, NYC (CCC&StL) Beech Grove, Ind.; ER, NYC-DSI-MDT East Rochester, N.Y.; MKR, P&LE McKees Rocks, Pa.; PCM, Pullman Car & Mfg., Chicago, Ill.; PSC, Pressed Steel Car, McKees Rocks, Pa.; RSC, Ralston Steel Car, Columbus, O.; SSB, Standard Steel Car, Butler, Pa.; SSN, Standard Steel Car, New Castle, Pa.



B-end view of P&LE 38418, Lot 651-H. Note that this car retained two of the original three crosstie braces as rebuilt, with the middle crosstie replaced with a crossridge.

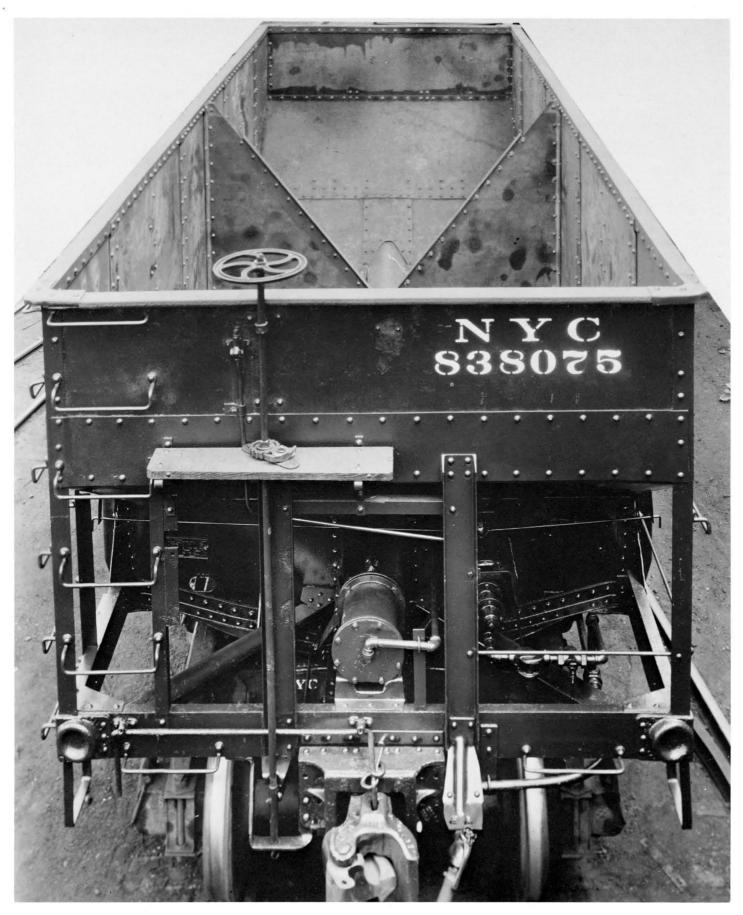


Three-quarter view of car 838075, Lot 410-H, as rebuilt at East Rochester in 1942. The original USRA side construction is retained.

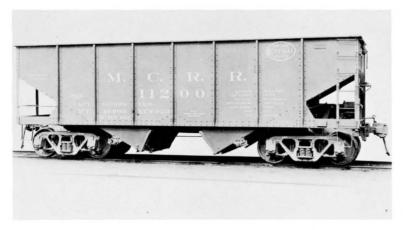


Car 850246, Lot 641-H, one of 90 cars drawn from 12 older lots and rebuilt with integral stake paneled sides of copper-bearing steel at Beech Grove in 1936.

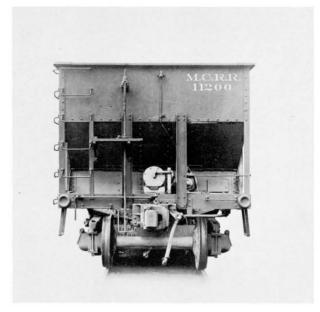
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Top-interior view of car 838075, Lot 410-H, as rebuilt at East Rochester in 1942. Note that the car sides are braced with a single crossridge rather than with the original triple crosstie braces.



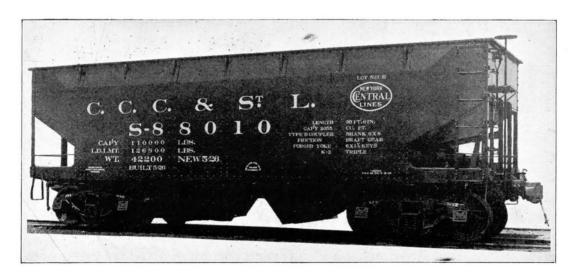




Composite views of car 11200, Lot 411-H, which carried Michigan Central reporting marks. Note the three crosstie braces supporting the car sides. Nine cars from this lot were destined to become the Central's first covered hopper cars in 1929.

## THE RALSTON STEEL CAR COMPANY

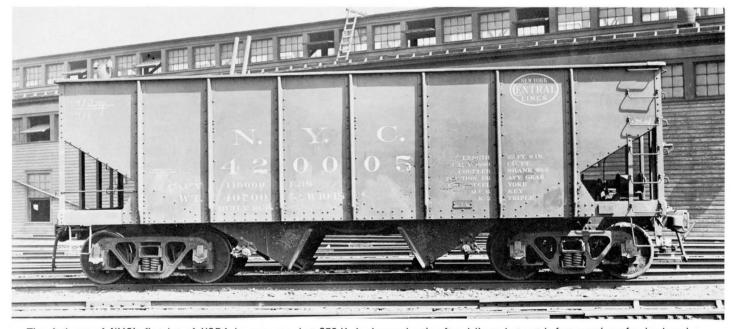
COLUMBUS, OHIO



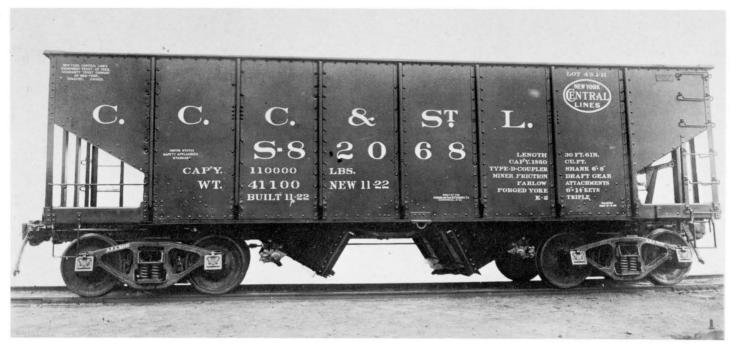
Annual Capacity 7500 New or Rebuilt Freight Cars



Three-quarter view of NYC 420005, Lot 378-H, shows two of the three crosstie braces used in the original USRA design, and the vertical staff lever-type hand brake. Note the brake cylinder mounted above the center sill, with cylinder head towards end of car.



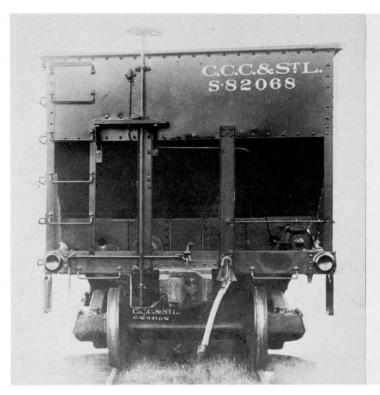
The sixth car of NYC's first lot of USRA hopper cars, Lot 378-H, is shown shortly after delivery but not before carrying a few loads and acquiring a few scars. Trust plate is mounted at side sill level, below dimensional stencilling.



Big Four S-82068, Lot 434-H, was a USRA car built after the end of Federal control. Note that it is equipped with Bettendorf design trucks rather than with the Andrews trucks used on earlier cars. "S" prefix denotes that it is a "System" car.



Twenty additional cars from Lot 449-H were converted to covered hoppers at East Rochester in 1936 and reassigned to Lot 647-H. These cars are painted gray and carry the new system number series assigned in that year.

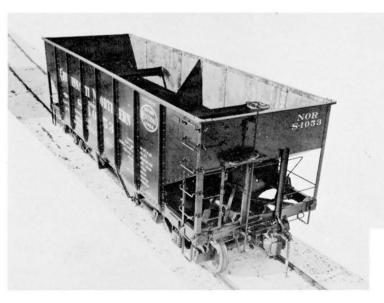


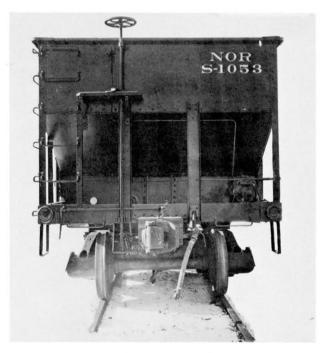




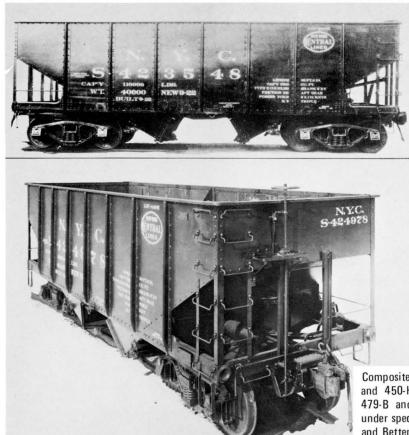
View of Big Four S-82068 showing B-end and interior detail. Note that this car has a wheel-type hand brake as built, and two interior crossties and a crossridge in lieu of the three crossties used on earlier cars.

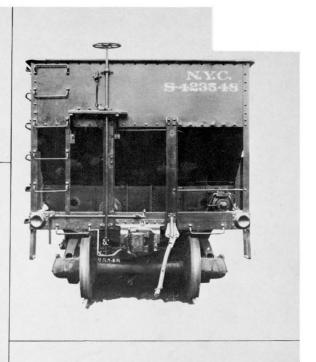




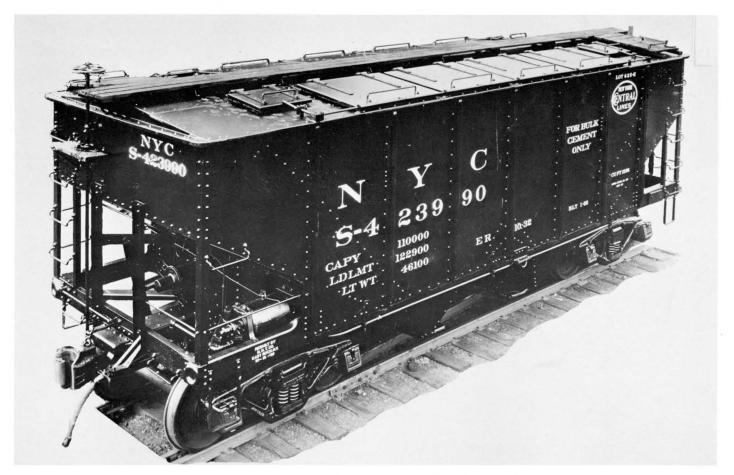


Composite views of Cincinnati Northern S-1053, Lot 432-H, one of 750 cars to carry the NOR reporting marks. Built after the end of Federal control to NYC specification 479-B, these cars incorporated a number of variations from the basic USRA design, notably Bettendorf trucks, wheeltype hand brake, and crossridge construction.





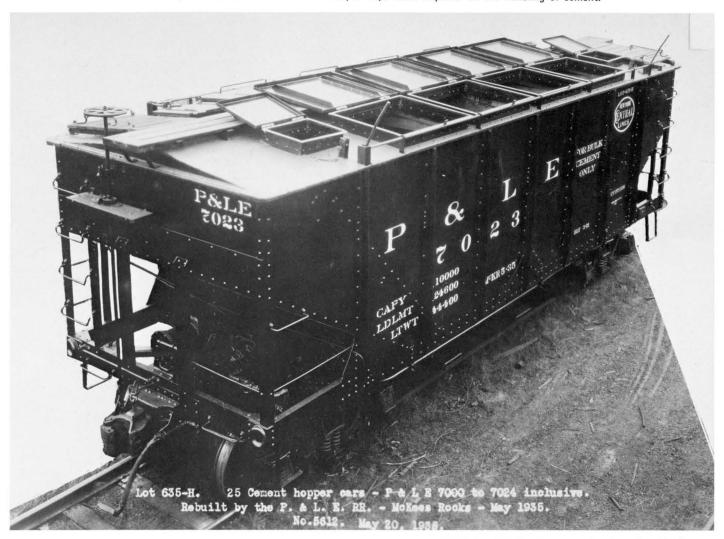
Composite views representing New York Central Lots 433-H, 449-H, and 450-H. Lots 433-H and 450-H were built under specification 479-B and had new Bettendorf trucks, while Lot 449-H was built under specification 499-A and used a mixture of second-hand Andrews and Bettendorf trucks.



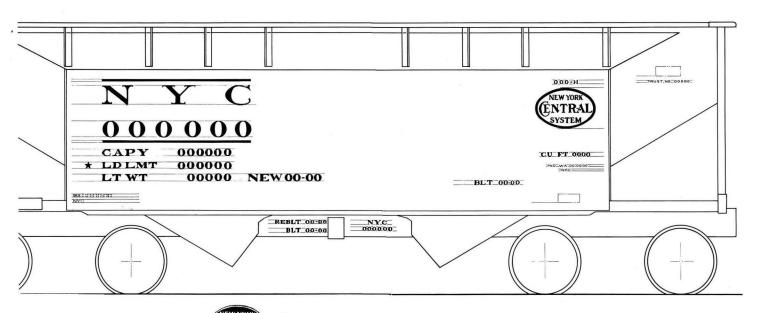
Ten cars from Lot 449-H were converted to covered hoppers at East Rochester in 1932 and reassigned to Lot 625-H. These were the first Central covered hoppers for bulk cement service. Note that the gray paint scheme had not yet been adopted for covered hoppers.



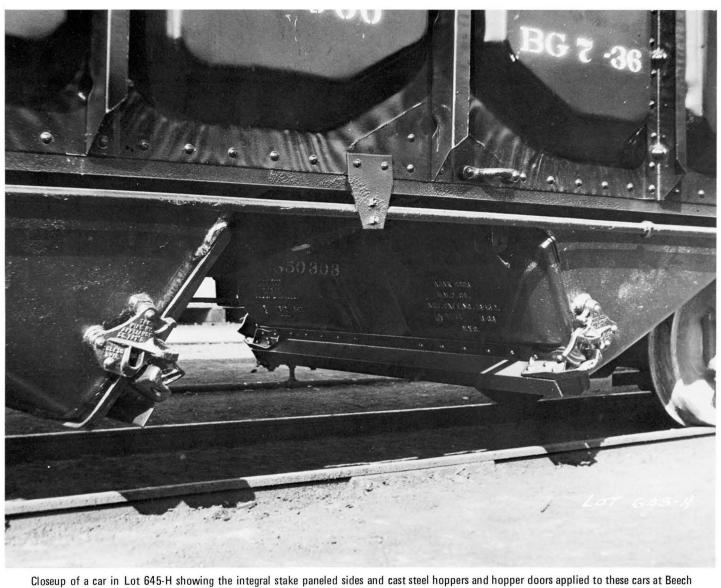
NYC 880040 was one of 105 cars from Lot 449-H which were converted to covered hoppers at Beech Grove in 1937 and assigned Lot 661-H. Note the row of rivets marking the location of the new and steeper slope sheet required for the handling of cement.



P&LE also converted USRA hoppers to covered hoppers, and this photo shows car 7023, Lot 635-H, after conversion from Lot 407-H at McKees Rocks in 1935. Ultimately Lot 635-H included 65 cars.



## New York Central



Closeup of a car in Lot 645-H showing the integral stake paneled sides and cast steel hoppers and hopper doors applied to these cars at Beech Grove in 1936. 100 cars were converted in this manner.



NYC 416414, Lot 387-H, is shown after rebuilding at the Avis, Pa. shops in 1933. New sides are the Union Metal Products Co.'s pressed panel design with separate stakes. Note the stencilled cubic footage of the 1942, which is increased from the 1880 cu. ft. of the as-built car. Trust plate has been reapplied at the right corner, below top ladder round.



Ready to rejoin the war effort after receiving repairs at East Rochester, N.Y. shops in 1942 is NYC 838075. The original side design has been retained, and note that some side sheets have been only partially replaced. The "K" type brake appears to have been retained on this car.

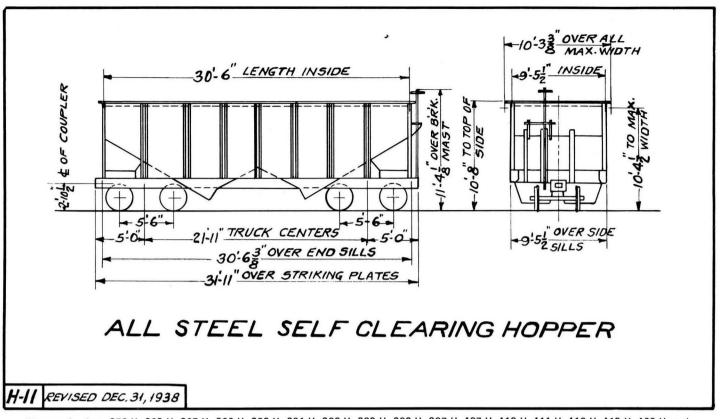


Diagram for Lots 378-H, 383-H, 387-H, 388-H, 390-H, 391-H, 392-H, 393-H, 396-H, 397-H, 407-H, 410-H, 411-H, 412-H, 413-H, 426-H, and 631-H.



CCC&StL 79262, Lot 390-H, is shown after rebuilding at the Beech Grove, Ind. shops in 1935. New sides are the Union Metal Product Co.'s pressed panel design with integral stakes. Note the stencilled cubic footage of 1982, which is increased from the 1880 cu. ft. of the as-built car. Trust plate has been reapplied below the oval, just above side sill.

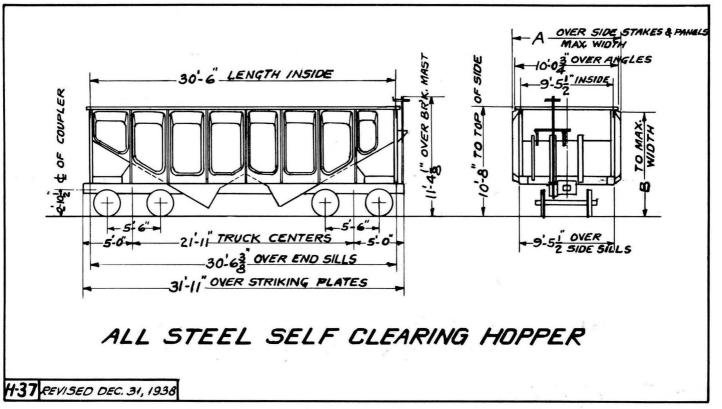


Diagram for Lots 640-H, 641-H, 645-H, 651-H, 655-H, 674-H, and Cars 850170-850175



Diagram for Lots of off	, 01111, 01011, 00111, 00011, 07	i ii, una ouis ooo
Lot No. or Cars	Dim. A	Dim. B
640-H	10'-4 3/4"	10'-5 3/4"
641-H	10'-4 7/8"	10'-5 3/4"
645-H	10'-4 7/8"	10'-5 3/4"
651-H	10'-4 7/8"	10'-5 1/2"
655-H	10'-4 7/8''	10'-5 1/2"
674-H	10'-4 3/4"	10'-5 3/4"
850170-850172	10'-0 7/8"	10'-5 3/4"
850173-850175	10'-4 7/8"	10'-5 3/4"





Hopper cars on the move was a familiar sight all over the "System" and for many years the U.S.R.A. steel hoppers were the backbone of the coal-hauling fleet. Mohawk 3115 with an Eastbound string of hoppers on the old L.E. & P. gets orders at Marcy Yard in Cleveland on May 9, 1952.

Photo by Richard J. Cook

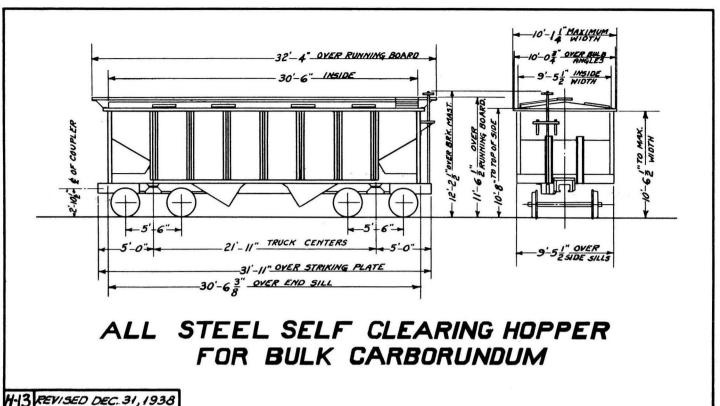


Diagram for Lot 411-H rebuilt to covered hopper.

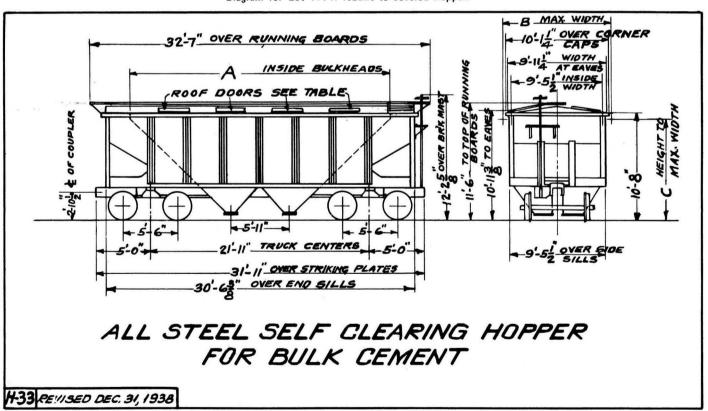


Diagram for Lots 635-H and 661-H

Lot No. 635-H

Dim. A Dim. B 25'-814" 10'-1 3/8"

Dim. C 8'-11 3/8" 10'-8"

**Roof Doors** 8 large & 4 small 8 large

25'-10" 10'-114" 661-H Lot 635-H Cars 7000-7049 have Wine Co. hopper doors

Lot 635-H Cars 7050-7064 have Enterprise Co. hopper doors

Lot 661-H has Enterprise Co. hopper doors

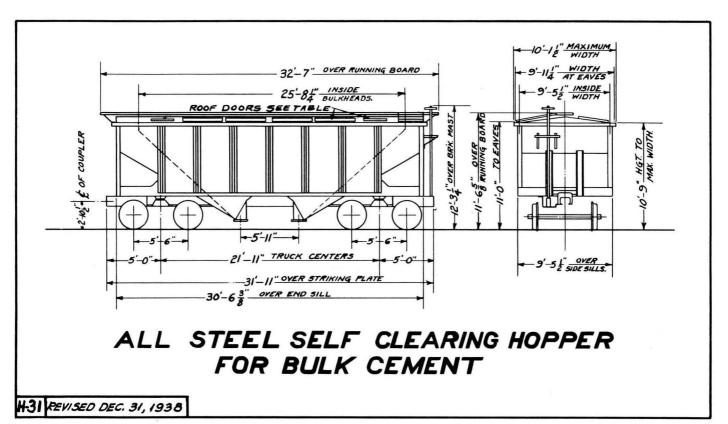


Diagram for Lots 625-H and 647-H

Lot No.

Roof Doors

Hopper Doors

625-H

8 large & 4 small

**Built-up sliding** 

647-H

8 large

Wine Co.

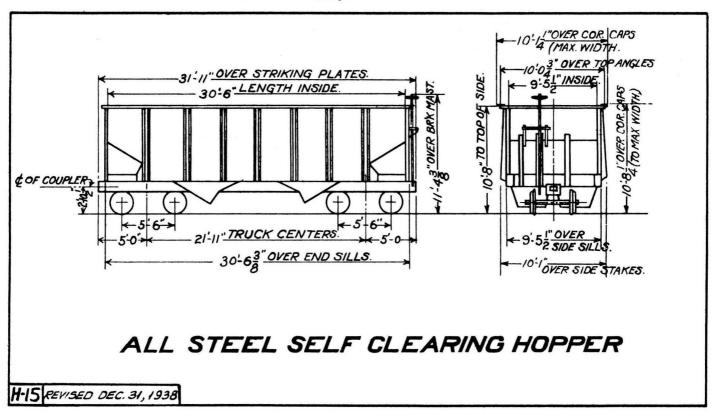


Diagram for Lots 432-H, 433-H, 434-H, 450-H, 451-H, and 639-H.

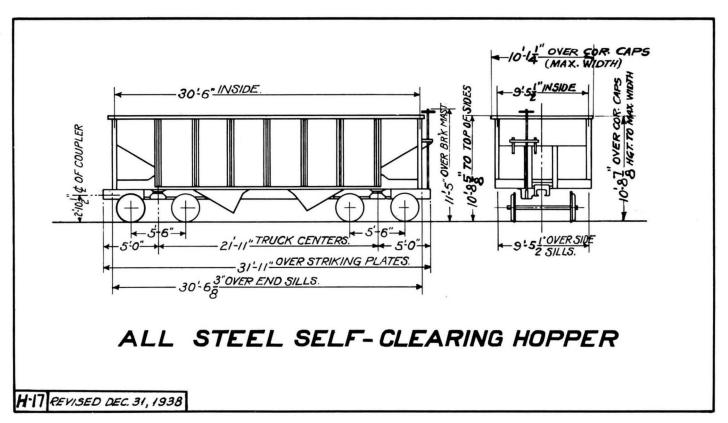
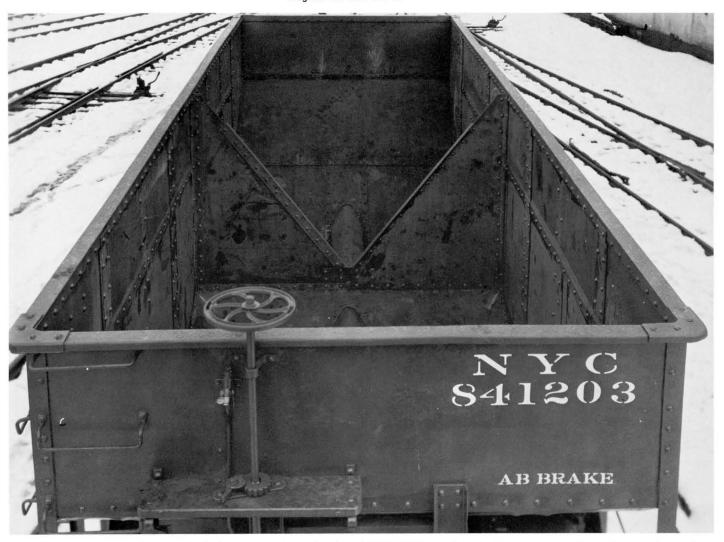
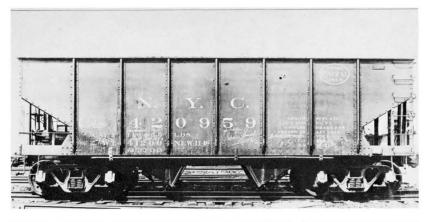
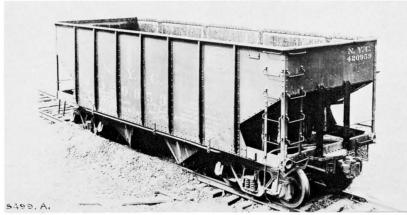


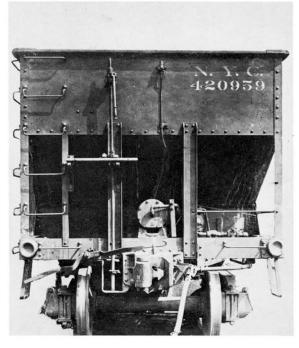
Diagram for Lot 449-H.



Many construction details show clearly in this top and interior view of NYC 841203, Lot 412-H. Note that a crossridge has been applied, and that the original three crossties have been eliminated.







Lot 388-H, 500-55 ton self-clearing hopper cars, H.Y.C.R.R. 420500-420999. Built by Standard Steel Car Co., Butler, Pa. in 1918.



B end view of NYC 841203 after application of "AB" brake equipment at the 1943 shopping. Also note support angle remaining on ladder stile and originally used for brake step of lever type hand brake.